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AMENDMENTS TO THE CLAIMS:

Please replace the claims with the claims provided in the listing below

wherein status, amendments, additions and cancellations are indicated.

1. (Currently Amended) A bearing apparatus ~~for supporting a pinion shaft~~,

comprising:

a case;

a pinion shaft having a pinion gear at a first end and a companion flange at

a second end;

a pair of rolling bearings which rotatably support [[a]] the pinion shaft to

[[a]] the case and are arranged side by side in a shaft direction between [[a]] the

pinion gear ~~arranged at one end of said pinion shaft~~ and [[a]] the companion flange

~~attached outside the other end thereof~~ ;

~~wherein~~ the rolling bearing on the companion flange side ~~comprises~~ being

an angular ball bearing comprising an inner ring fixed to said pinion shaft, an outer

ring fixed to said case, and a set of balls interposed between ~~these~~ the inner ring

and the outer ~~rings~~ ring [[,]] ;

said companion flange applying a preload in an axial direction to said

angular ball bearing via the inner ring;

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said inner ring having an inner ring raceway, the outer ring having an outer

ring raceway, and the balls having a ball diameter Bd;

and

wherein a relationship between a radius of curvature Ri of [[an]] the

inner ring raceway, a radius of curvature Ro of [[an]] the outer ring raceway, and

[[a]] the ball diameter Bd of the rolling bearing on the companion flange side

satisfies

$$Ri < Ro$$

$$0.502 \times Bd \leq Ri \leq 0.512 \times Bd, \text{ and}$$

$$0.510 \times Bd \leq Ro \leq 0.520 \times Bd.$$

2. (Currently Amended) The bearing apparatus for supporting the pinion

shaft according to claim 1, wherein a contact angle θ between the ball and the

inner and outer ring raceways in the rolling bearing on the companion flange side

satisfies $30° \leq \theta < 45°$.

3. (Currently Amended) The bearing apparatus for supporting the pinion

shaft according to claim 1, wherein the rolling bearing on the companion flange

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side includes an angular contact ball bearing with single raceway or a tandem type angular contact ball bearing with double raceway.

4. (Withdrawn - Currently Amended) The bearing apparatus ~~for supporting the pinion shaft~~ according to claim 3, wherein the rolling bearing on a pinion shaft side includes a circular cone rolling bearing with single raceway:

5. (Currently Amended) The bearing apparatus ~~for supporting the pinion shaft~~ according to claim 3, wherein the rolling bearing on [[the]] a pinion side of said pinion shaft ~~side includes the~~ is a tandem type angular contact ball bearing with double raceway.

6. (Withdrawn - Currently Amended) The bearing apparatus ~~for supporting the pinion shaft~~ according to claim 3, wherein the rolling bearings on [[the]] a pinion side of said pinion shaft [[side]] includes a combination of two angular contact ball bearings with single raceway.

7. (Withdrawn) A bearing unit for supporting a pinion shaft to a differential retaining shield, comprising:

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a rolling bearing comprising an angular contact ball bearing with single raceway on a companion flange side; and

a rolling bearing comprising a tandem type angular contact ball bearing with double raceway on a pinion gear side,

wherein both of the rolling bearings commonly comprise an outer ring as a single outer ring and

wherein a relationship between a radius of curvature Ri of an inner ring raceway, a radius of curvature Ro of an outer ring raceway, and a ball diameter Bd of the rolling bearing on the companion flange side satisfies

$$Ri < Ro$$

$$0.502 \times Bd \leq Ri \leq 0.512 \times Bd, \text{ and}$$

$$0.510 \times Bd \leq Ro \leq 0.520 \times Bd.$$

8. (New) The bearing apparatus according to claim 1 wherein the radius of curvature Ro is larger than the radius of curvature Ri by about 1% of the ball diameter Bd.

9. (New) The bearing apparatus according to claim 2 wherein the radius of curvature Ro is larger than the radius of curvature Ri by about 1% of the ball diameter Bd.

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10. (New) The bearing apparatus according to claim 3 wherein the radius of curvature Ro is larger than the radius of curvature Ri by about 1% of the ball diameter Bd.

11. (New) The bearing apparatus according to claim 4 wherein the radius of curvature Ro is larger than the radius of curvature Ri by about 1% of the ball diameter Bd.

12. (New) The bearing apparatus according to claim 5 wherein the radius of curvature Ro is larger than the radius of curvature Ri by about 1% of the ball diameter Bd.

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